



10/22/13

### Agenda

- Opener
- Review Homework
  - HW 2.9 - p. 141-143 (10-36 evens (skip 30), 54, 56)
- Section 2.10 - Percent of Change
- Homework
  - HW 2.10 - p. 148-150 (8-16 evens, 26, 42, 44)
- Tomorrow - Start Chapter Review
- Thursday - Target Review
- **Monday - TEST ON CHAPTER 2!!!**

Warmup:



- Grab a slip of paper
- Put your name on it

- Distribute  $3(2x-3)$

$$6x - 9$$

$$2x - 3$$
$$3 \boxed{6x \mid -9}$$

$$6x - 9$$

# Section 2.10 - Percent of Change

## Target 26

Goal:	Find % of change.
Percent Change:	The amount of change, expressed as a percent, in relation to an original amount.
Percent Increase:	This means the new amount is greater than the original amount, or the percent change is <b>positive</b> .
Percent Decrease:	This means the new amount is less than the original amount, or the percent change is <b>negative</b> .

How to Find Percent Change:

$$\% \text{ change} = \frac{\text{new amount} - \text{old amount}}{\text{old amount}} * 100$$

**DIFFERENCE**  
**ORIGINAL**

Remember, if the % change is positive, it's an increase.  
If the % change is negative, it's a decrease.

Find Percent Change:

Original Amount: 9  
New Amount: 6

$$\frac{(6-9)}{9} * 100 = \frac{-3}{9} * 100$$

-33%

OR

33% DECREASE

Increase or decrease?

% change:

-33.3%  
-33%

Original Amount: 7.5  
New Amount: 9.5

$$\frac{(9.5-7.5)}{7.5} * 100$$

$$\frac{N-O}{O} * 100$$

$$\frac{2}{7.5} * 100$$

Increase or decrease?

% change:

26.6%  
27%

## Section 2.10 - Percent of Change

## Target 26

You Try:

Original Amount: 195.50

New Amount: 215.25

$$\frac{(215.25 - 195.50)}{195.50} * 100$$

$$\frac{N - O}{O} * 100$$

Increase or decrease?

% change: 10.1%

Original Amount: 2008

New Amount: 1975

$$\frac{1975 - 2008}{2008} * 100$$

Increase or decrease?

% change: -1.6%

Suppose you were hired at a job at \$8.00 per hour. You just got a raise to \$9.25 per hour. What was the percent increase?

$$\frac{N - O}{O} * 100$$

$$\frac{(9.25 - 8)}{8} * 100$$

15.625

On June 1<sup>st</sup>, there are about 18.75 hours of sunlight. On December 1<sup>st</sup>, there are about 8 hours of sunlight. Find the % decrease.

$$\frac{(8 - 18.75)}{18.75} * 100$$

-57.3%

Summary: To find percent change,  $\frac{\text{new amount} - \text{old amount}}{\text{old amount}} * 100$

If the percent is positive, it was an increase. If it was negative, it was a decrease.